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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 2 and 25 to Implement	)	IB Docket No. 99-67
The Global Mobile Personal Communications	)	DA 00-2826
By Satellite (GMPCS) Memorandum of	)	
Understanding and Arrangements	)	
	)	
Petition of the National Telecommunications and	)	RM No. 9165
Information Administration to Amend Part 25 of the	)	
Commission's Rules to Establish Emission Limits for	)	
Mobile and Portable Earth Stations Operating in the	)	
1610-1660.5 MHz Band	)	

SUPPLEMENTAL COMMENTS OF INMARSAT LTD.

Inmarsat Ltd. ("Inmarsat"), by counsel, hereby submits its comments in response to the Commission's request for additional information in the above-captioned matter regarding implementation of 911 emergency-call features to satellite systems providing commercial mobile radio services.[1]

As stated in previous filings in this and other proceedings, Inmarsat continues to believe that emergency services are extremely important and supports action by the Commission to encourage GMPCS operators to voluntarily supply such service.[2] However, industry parties commenting in this proceeding have been virtually unanimous in their belief that incorporation of 911 capability into currently operating terminals is too technically complex and expensive to be justified.[3] By mandating this capability, the

[1] *Public Notice: International Bureau Invites Further Comment Regarding Adoption of 911 Requirements for Satellite Services*, IB Docket No. 99-67, DA 00-2826, released December 15, 2000 ("Notice").
[2] *See* Comments of Inmarsat Ltd., IB Docket No. 99-67 (June 21, 1999); Reply Comments of Inmarsat Ltd. (July 20, 1999). *See also* In the Matter of the Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, IB Docket No. 99-81, Comments of Inmarsat Ltd. (June 24, 1999); Reply Comments of Inmarsat Ltd. (July 26, 1999).
[3] *See, e.g.*, Comments of Teledesic LLC; Comments of American Mobile Satellite Corporation; Comments of the Satellite Industry Association.

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Commission would severely restrict the range of mobile terminals that would be permitted to be used in the United States. This would increase the danger faced by persons in emergency situations. A telephone is the first recourse for a traveler in an emergency. In any such instance, a mobile terminal without mandated 911 capability is vastly superior to no mobile terminal at all.

The Commission now requests specific information regarding a number of regulatory and technical aspects of MSS operations and the effect mandatory 911 capability would have on them. As the operator of an international GSO-based MSS system, Inmarsat believes that it would shoulder a prohibitively heavy burden were the Commission to impose the mandatory 911 standards discussed in the Notice.

I. International Coordination

First, as an international operator, Inmarsat must design and implement technical and operational parameters that satisfy the requirements of not just the United States, but many other governments as well. The more detailed any one set or sets of domestic requirements, the more difficult it becomes for international service providers to ensure that their equipment is compliant with all such requirements. Inmarsat believes that the development of emergency-calling standards for international service providers would be far more appropriately left to international standards bodies. To this end, Inmarsat urges the Commission not to take independent action which may unduly burden international service providers.

II. E911 Issues

In the Notice, the Commission notes the reported capability of at least two LEO systems to provide some level of automatic location identification without the use of

Global Position System ("GPS") components and asks if it would be feasible for other MSS systems to do the same.[4] Inmarsat's system design makes it impossible for Inmarsat to incorporate E911 capabilities such as Automatic Location Identification ("ALI") into its handsets without including external ("GPS") components. Inmarsat notes that systems of the kind cited by the Commission employ large fleets of NGSO satellites. An end user is typically within the footprint of several such satellites at the same time. This allows the user's position to be triangulated by the system. In contrast, Inmarsat provides its global coverage by means of a fleet of four GSO satellites widely spaced around the equator. Because these satellites are far apart and have individual footprints with minimal overlap, users are generally only within the footprint of one satellite at a time. Therefore, Inmarsat is unable to triangulate on to a specific terminal signal in order to pinpoint its location with the kind of accuracy that would be required for meaningful E911 service.

The addition of external GPS components to MSS user terminals also raises technical and financial questions. In fact, Inmarsat intends to incorporate GPS into its next generation of mobile satellite earth stations. However, Inmarsat has been providing international MSS for 20 years. Approximately two hundred thousand end user terminals are on the system worldwide. The cost of recalling and retrofitting such terminals in terms of customer inconvenience and disruption would far exceed any added benefit. Thus, Inmarsat believes that imposition of location monitoring requirements on *all* of its terminals would be prohibitively burdensome and expensive. In the event the Commission does adopt location monitoring requirements, Inmarsat urges that these

[4] Notice at 6, fn. 24.

requirements be applicable on a prospective basis only and that existing terminals be grandfathered against such requirements.

III. Basic 911 Issues

Inmarsat also opposes the establishment of basic 911 requirements for MSS systems at this time.[5] As the Commission notes in its Public Notice, even domestic MSS carriers interconnect with the public switched telephone network at only a few points in the United States and do not interconnect directly with most local wireline carriers.[6] This problem is compounded even further for providers of global MSS. In may instances, the end user is physically present in one country, while the nearest network facility is located in another country. In such cases, the user has no direct association with his or her local network. Any global MSS provider would have to use a full international number to route any calls to national emergency call handling centers. Therefore, MSS is unable to make use of existing facilities to route 911 calls directly to local Public Safety Answering Points ("PSAP"). The Commission suggests that this problem could be overcome through the employment of currently unavailable location information and a national PSAP database to correlate the caller's geographical position with the service area of the nearest PSAP.[7] However, as discussed above, the technical complexity and cost of incorporating location identification technology into Inmarsat's existing terminals is prohibitive.

The Commission also suggests that emergency MSS calls might be routed to central operators, who could redirect the calls to the appropriate response agencies in the

[5] This is essentially the requirement that a 911 call be automatically routed to the nearest or most appropriate local emergency response center.
[6] Notice at 3.
[7] Notice at 4.

caller's area.[8] However, to be implemented on a national or international scale, this idea would still be dependent on location identification information necessary to ensure that the appropriate national emergency number is dialed.

IV. Conclusion

Inmarsat agrees with the decision by the Commission and the industry to consider the establishment of emergency calling procedures for MSS. However, Inmarsat believes that the requirements proposed by the Commission are too technically complex and economically burdensome, and therefore should not be adopted. To the extent that the Commission believes that 911 requirements are justified, Inmarsat urges that such requirements be general in nature and prospective only, allowing MSS providers the maximum flexibility to work within the strengths and limitations of their own systems. Inmarsat also urges the Commission to work in cooperation with international standard setting bodies in order to ensure minimal regulatory complexity for international service providers.

Respectfully submitted,

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February 20, 2001

[8] *Id.*

CERTIFICATE OF SERVICE

I, Maria Cabico, a secretary with the law firm of Powell Goldstein Frazer & Murphy LLP, hereby certify that copies of the attached Supplemental Comments of Inmarsat Ltd., were served on February 20, 2001, via hand delivery, on the following parties:

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